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ABSTRACT

This document features a checklist designed to help teachers keep track of student progress on the Math Standards that are tested by the Florida Comprehensive Assessment Test (FCAT). A chart of benchmarks assessed in grades 3-5, test items based on the benchmarks, and an answer key and actual checklists are included. (KHR)

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Mathematics Standards Checklist

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Table of Contents

Introduction 1

Chart of Math Benchmarks Assessed at Grades 3-5 2

Test Items..... Tabs

Answer Key..... Tabs

Student Benchmark Tracking Sheet..... Tabs

Appendix..... Tabs

Mathematics Standards Checklist

This checklist is designed to help teachers keep track of student progress on the Math Standards that are tested by the FCAT. There is a section of general information in the beginning. The middle section is made up test items based on the FCAT benchmarks. An answer key and the actual checklists are in the back section

There is no "Right" or "Wrong" way to use this book. It is only limited by the imaginations of the teachers using it. One way to use this guide would be to identify the skills that your students need through the FCAT practice tests, teach that skill in class, then use the items here to test for mastery. If the student passes the test, you go on to other skills.

Since teachers and schools use a variety of FCAT preparation materials, the tests for mastery are also varied. By using these tests, we would all be on the same page and hopefully results would be more meaningful. Also, these test items come from the Math Test Item bank, Test Item Specifications, FCAT Released Items and FCAT Practice Tests from the Department of Education, so they should align more closely with the real FCAT than some of the tests in commercially prepared materials.

The checklist itself can be used in different ways. Some may want to simply check the box and indicate that a child has mastered a specific standard. Others may want to write a date in the box. Another may want to write a percentage or number correct out of the total number. Since the checklist was created in Excel, and each school will get a copy of the disk, teachers could format it to make calculations of the percentage of students passing a standard and use it for graphing and charting. However a teacher, grade level, or school decides to use this tool, it is a way of noting that a student has successfully completed and checked out on a skill that is critical to the FCAT test. When used in coordination with lesson plans indicating the standards that are being taught daily, a teacher has a tool for parents and administrators to show how students in his/her class are being monitored for improvement in Math.

Chart of Benchmarks Assessed at Grades 3 – 5

SUNSHINE STATE STANDARDS BENCHMARK	ITEM FORMATS		
GRADES 3 – 5	Grade 3	Grade 4	Grade 5
STRAND A: NUMBER SENSE, CONCEPTS, and OPERATIONS			
MA.A.1.2.1 Names whole numbers combining 3-digit numeration (hundreds, tens, ones) and the use of number periods, such as ones, thousands, and millions and associates verbal names, written word names, and standard numerals with whole numbers, commonly used fractions, decimals, and percents.	Assessed with A.1.2.4	Assessed with A.1.2.4	Assessed with A.1.2.4
MA.A.1.2.2 Understands the relative size of whole numbers, commonly used fractions, decimals, and percents.	MC	MC	MC, GR
MA.A.1.2.3 Understands concrete and symbolic representations of whole numbers, fractions, decimals, and percents in real-world situations.	Assessed with A.1.2.4	Assessed with A.1.2.4	Assessed with A.1.2.4
MA.A.1.2.4 Understands that numbers can be represented in a variety of equivalent forms using whole numbers, decimals, fractions, and percents. (Also assesses A.1.2.1 and A.1.2.3)	MC	MC	MC, GR
MA.A.2.2.1 Uses place-value concepts of grouping based upon powers of ten (thousandths, hundredths, tenths, ones, tens, hundreds, thousands) within the decimal number system.	MC	MC	GR
MA.A.2.2.2 Recognizes and compares the decimal number system to the structure of other number systems such as the Roman numeral system or bases other than ten.	Not assessed	Not assessed	Not assessed
MA.A.3.2.1 Understands and explains the effects of addition, subtraction, and multiplication on whole numbers, decimals, and fractions, including mixed numbers, and the effects of division on whole numbers, including the inverse relationship of multiplication and division.	MC	MC	MC
MA.A.3.2.2 Selects the appropriate operation to solve specific problems involving addition, subtraction, and multiplication of whole numbers, decimals, and fractions, and division of whole numbers.	MC	MC	MC
MA.A.3.2.3 Adds, subtracts, and multiplies whole numbers, decimals, and fractions, including mixed numbers, and divides whole numbers to solve real-world problems, using appropriate methods of computing, such as mental mathematics, paper and pencil, and calculator.	MC	MC	MC, GR
MA.A.4.2.1 Uses and justifies different estimation strategies in a real-world problem situation and determines the reasonableness of results of calculations in a given problem situation. (Also assesses B.3.2.1)	MC	MC	SR
MA.A.5.2.1 Understands and applies basic number theory concepts, including primes, composites, factors, and multiples.	MC	MC	MC

MC: Multiple Choice
GR: Gridded Response
SR: Short Response
ER: Extended Response

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Chart of Benchmarks Assessed at Grades 3 – 5 (continued)

SUNSHINE STATE STANDARDS BENCHMARK	ITEM FORMATS		
GRADES 3 – 5	Grade 3	Grade 4	Grade
STRAND B: MEASUREMENT			
MA.B.1.2.1 Uses concrete and graphic models to develop procedures for solving problems related to measurement including length, weight, time, temperature, perimeter, area, volume, and angles.	Not assessed	Not assessed	Assess with C.2.2.
MA.B.1.2.2 Solves real-world problems involving length, weight, perimeter, area, capacity, volume, time, temperature, and angles.	MC	MC	MC, G
MA.B.2.2.1 Uses direct (measured) and indirect (not measured) measures to calculate and compare measurable characteristics.	MC	MC	MC, G
MA.B.2.2.2 Selects and uses appropriate standard and nonstandard units of measurement, according to type and size. (Also assesses B.4.2.1)	MC	MC	MC
MA.B.3.2.1 Solves real-world problems involving estimates of measurements, including length, time, weight, temperature, money, perimeter, area, and volume.	Assessed with A.4.2.1	Assessed with A.4.2.1	Assesse with A.4.2.1
MA.B.4.2.1 Determines which units of measurement, such as seconds, square inches, and dollars per tankful, to use with answers to real-world problems.	Assessed with B.2.2.2	Assessed with B.2.2.2	Assesse with B.2.2.2
MA.B.4.2.2 Selects and uses appropriate instruments and technology, including scales, rulers, thermometers, measuring cups, protractors, and gauges, to measure in real-world situations.	MC	MC	MC
STRAND C: GEOMETRY and SPATIAL SENSE			
MA.C.1.2.1 Given a verbal description, draws and/or models two- and three-dimensional shapes and uses appropriate geometric vocabulary to write a description of a figure or a picture composed of geometric figures.	MC	MC	SR
MA.C.2.2.1 Understands the concepts of spatial relationships, symmetry, reflections, congruency, and similarity. (Also assesses B.1.2.2, C.1.2.1, and C.3.2.1)	MC	MC	MC, ER
MA.C.2.2.2 Predicts, illustrates, and verifies which figures could result from a flip, slide, or turn of a given figure.	MC	MC	MC
MA.C.3.2.1 Represents and applies a variety of strategies and geometric properties and formulas for two- the three-dimensional shapes to solve real-world and mathematical problems. (Also assesses C.2.2.1)	MC	MC	MC, SR
MA.C.3.2.2 Identifies and plots positive ordered pairs (whole numbers) in a rectangular coordinate system (graph).	MC	MC	MC, SR

MC: Multiple Choice
GR: Gridded Response
SR: Short Response
ER: Extended Response

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Chart of Benchmarks Assessed at Grades 3 – 5 (continued)

SUNSHINE STATE STANDARDS BENCHMARK	ITEM FORMATS		
GRADES 3 – 5	Grade 3	Grade 4	Grade 5
STRAND D: ALGEBRAIC THINKING			
MA.D.1.2.1 Describes a wide variety of patterns and relationships through models, such as manipulatives, tables, graphs, and rules using algebraic symbols. (Also assesses D.1.2.2)	MC	MC	MC, GR
MA.D.1.2.2 Generalizes a pattern, relation, or function to explain how a change in one quantity results in a change in another. (Also assesses D.1.2.1)	Not assessed	Not assessed	SR
MA.D.2.2.1 Represents a given simple problem situation using diagrams, models, and symbolic expressions translated from verbal phrases, or verbal phrases translated from symbolic expressions, etc. (Also assesses D.2.2.2)	MC	MC	MC, SR
MA.D.2.2.2 Uses informal methods, such as physical models and graphs, to solve real-world problems involving equations and inequalities. (Also assesses D.2.2.1)	MC	MC	MC, GR
STRAND E: DATA ANALYSIS and PROBABILITY			
MA.E.1.2.1 Solves problems by generating, collecting, organizing, displaying, and analyzing data using histograms, bar graphs, circle graphs, line graphs, pictographs, and charts. (Also assesses E.1.2.3)	MC	MC	MC, GR, ER
MA.E.1.2.2 Determines range, mean, median, and mode from sets of data. (Also assesses E.1.2.3)	MC	MC	MC, GR
MA.E.1.2.3 Analyzes real-world data to recognize patterns and relationships of the measures of central tendency using tables, charts, histograms, bar graphs, line graphs, pictographs, and circle graphs generated by appropriate technology, including calculators and computers.	Assessed with E.1.2.1 and E.1.2.2	Assessed with E.1.2.1 and E.1.2.2	Assessed with E.1.2.1 and E.1.2.2
MA.E.2.2.1 Uses models, such as tree diagrams, to display possible outcomes and to predict events.	MC	MC	SR
MA.E.2.2.2 Predicts the likelihood of simple events occurring.	MC	MC	MC
MA.E.3.2.1 Designs experiments to answer class or personal questions, collects information, and interprets the results using statistics (range, mean, median, and mode) and pictographs, charts, bar graphs, circle graphs, and line graphs. (Also assesses E.3.2.2)	Not assessed	Not assessed	MC, SR
MA.E.3.2.2 Uses statistical data about life situations to make predictions and justifies reasoning.	Assessed with E.3.2.1	Assessed with E.3.2.1	Assessed with E.3.2.1

MC: Multiple Choice
GR: Gridded Response
SR: Short Response
ER: Extended Response

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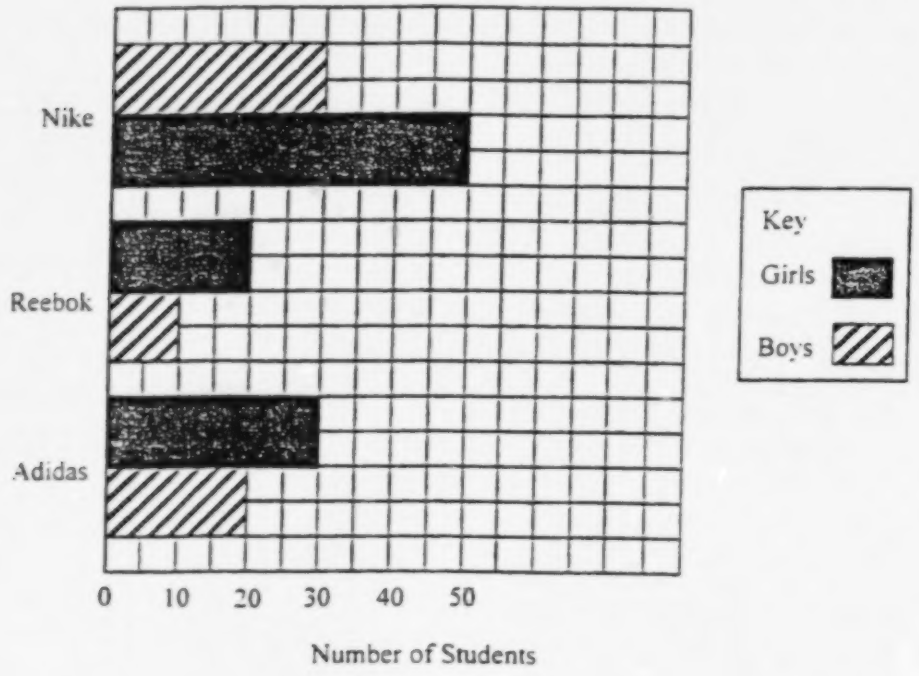
ITEM 108

MA.E.1.2.1

The fourth grade students at Egret Lake Elementary voted for their favorite tennis shoe. The double bar graph below shows the results of the vote.



How many more boys voted for Nike than for Reebok?

A. 5
B. 10
C. 20
D. 25

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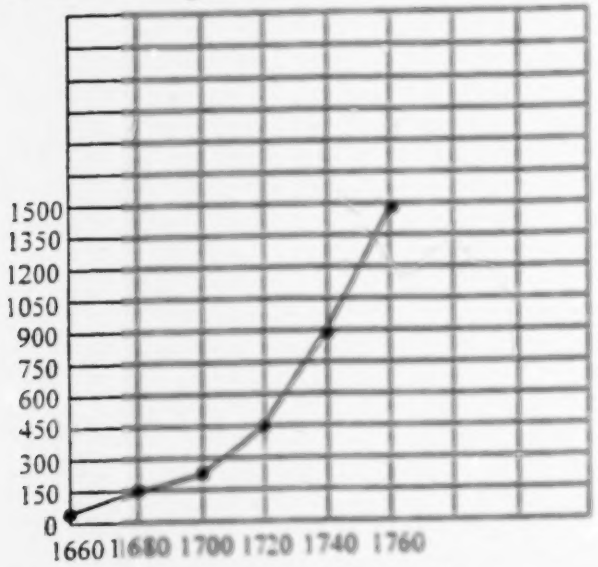
ITEM 109

MA.E.1.2.1

Population of the 13 English Colonies. 1660-1760



The population of the 13 English colonies in America grew quickly
How many more people were living in the colonies in 1760 than in 1680?

0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

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ITEM 110

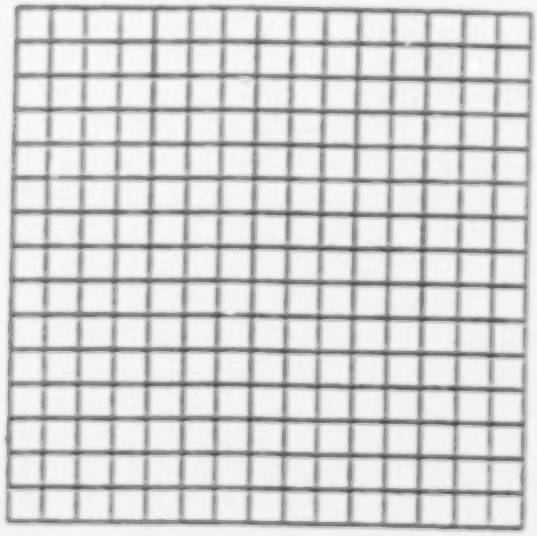
MA.E.1.2.1.

The students in Ms. Smith's classroom voted for their favorite books. The results are shown in the table below.

The Favorite Books of the Students in Ms. Smith's Class

Books	Number of Students Voting
Stories of Wayside School	6
The Hobbit	5
The Lion, the Witch, and the Wardrobe	8
Hatchet	5
The Indian in the Cupboard	6

Use the information from the table to make a bar graph on the grid below. Give your graph a title, label the vertical and horizontal axes, use an appropriate scale, and display the data correctly.



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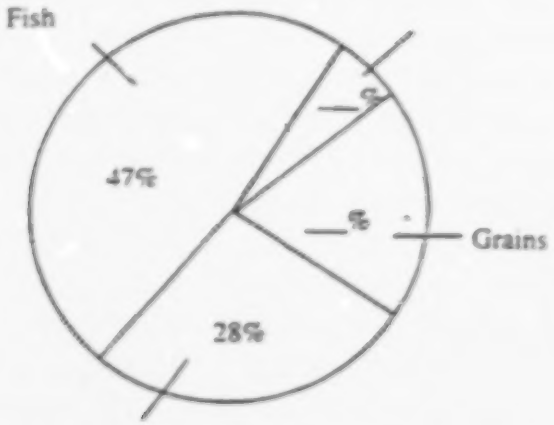
ITEM 111

MA.E.1.2.1

Scientists studied the diet of a group of people who lived on an island. Here is a list of the food groups and the percentage of the total diet made up of each food group.

Dairy products	8%
Grains	17%
Fruits	28%
Fish	47%



Fill in the blanks on the graph.

Using the information from the circle graph, write two sentences that compare the amounts of each food group that the islanders eat.

ITEM 112

MA.E.1.2.1

Mrs. Garcia asked the students in her fifth grade class how they got to school each morning. The results are shown below:

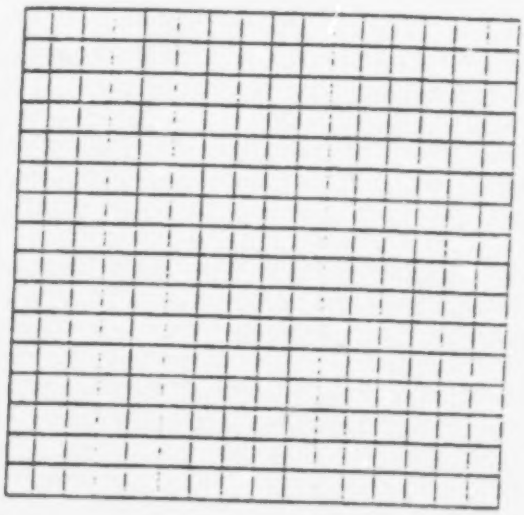
How the Students Come to School

Students	Method of Travel
Manuel	Bus
Mark	Car
Joseph	Bus
Mary	Walk
Alice	Bike
Sarah	Car
Cindy	Bus
Albertina	Bus
Ruben	Walk
Jose	Bus
Kimi	Walk
Christie	Car
Raul	Car
Gaudalupe	Bus
Tavaris	Walk
Shantavia	Bus
Monique	Walk
Steven	Bus
Beth	Car
Chris	Bike

On the grid below, make a bar graph showing the number of students who traveled to school by each method.

Be sure to:

- Title the graph
- Label the axes
- Use appropriate and consistent scales
- Accurately graph the data



On the lines below write two statements comparing how students get to school.

School_____
Teacher_____

Benchmark Tracking Checklist

Year_____
Grade_____

Student Name	Strand A: Number Sense, Concepts, and Operations								
	MA.A.1.2.2	MA.A.1.2.3	MA.A.1.2.4	MA.A.2.2.1	MA.A.3.2.1	MA.A.3.2.2	MA.A.3.2.3	MA.A.4.2.1	MA.A.5.2.1

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School_____
Teacher_____

Benchmark Tracking Checklist

Year_____
Grade_____

Student Name	StrandB:Measurement				Strand C: Geometry & Spatial Sense				
	MA.B.1.2.2	MA.B.2.2.1	MA.B.2.2.2	MA.B.4.2.2	MA.C.1.2.1	MA.C.2.2.1	MA.C.2.2.2	MA.C.3.2.1	MA.C.3.2.2

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School_____ Year_____

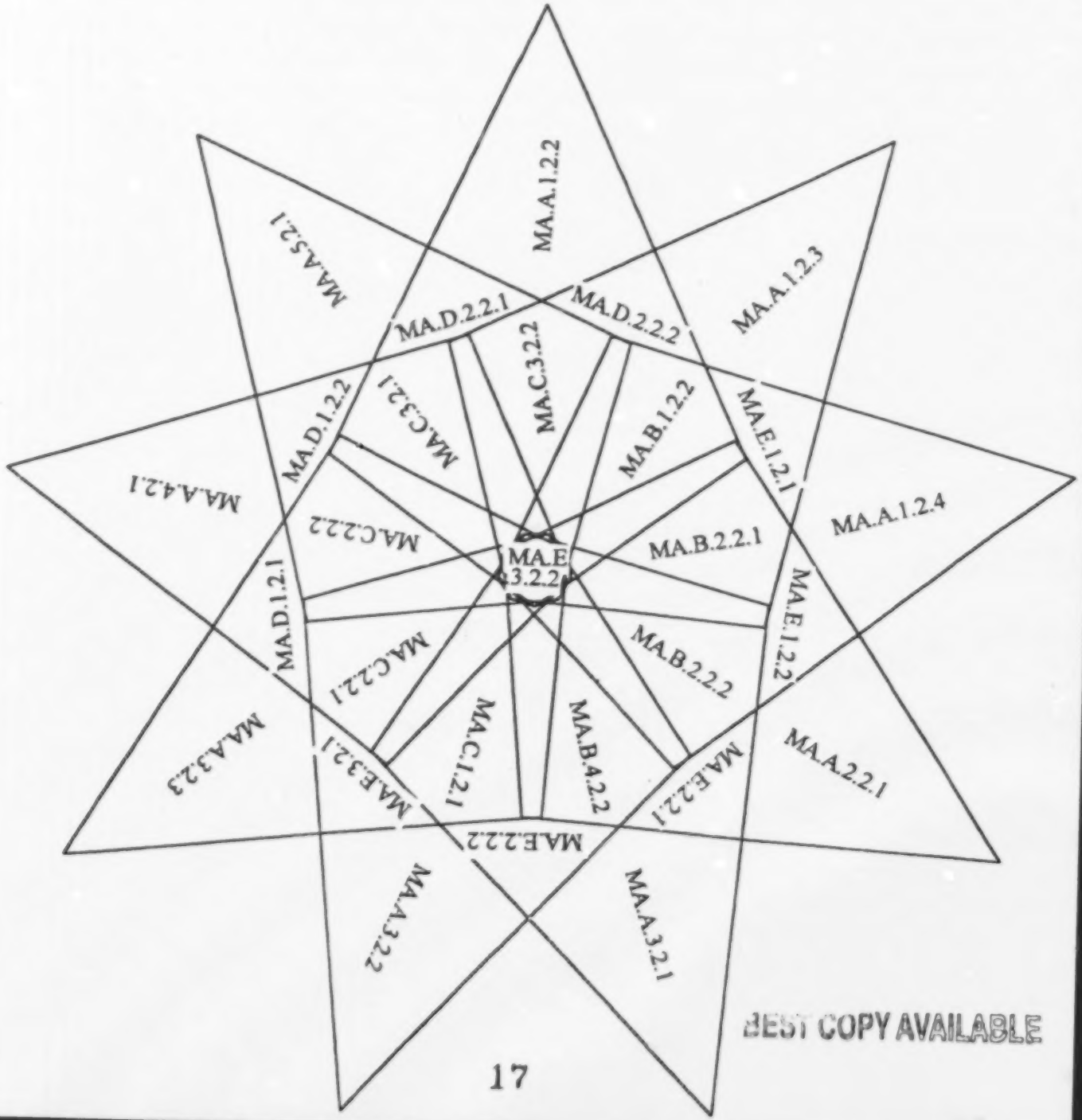
Benchmark Tracking Checklist

Teacher_____ Grade_____

Student Name	Strand D: Algebraic Thinking				Strand E: Data Analysis					
	MA.D.1.2.1	MA.D.1.2.2	MA.D.2.2.1	MA.D.2.2.2	MA.E.1.2.1	MA.E.1.2.2	MA.E.2.2.1	MA.E.2.2.2	MA.E.3.2.1	ME.E.3.2.2

Student Self-tracking Math Benchmark Checklist

Student Name _____



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